REMARKS

I. Pending Claims

Claims 1-92 are pending in this application. No claim has been amended by this response.

II. Personal Interview

Applicants respectfully thank Examiner Elhilo for the courtesies extended to Applicants' representatives Anthony Tridico and Mareesa Frederick during the personal interview on April 7, 2005.

III. Claim Rejections

In order to carry the initial burden of establishing a prima facie case of obviousness that satisfies the *Graham* standard, the Examiner must demonstrate that three elements are met. First, the Examiner must show that the prior art reference teaches or suggests all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Second, the Examiner must show that the prior art could have been combined with a reasonable expectation of success. *In re Merck & Co., Inc.,* 800 F.2d 1091, 213 USPQ 375 (Fed. Cir. 1986). Finally, the Examiner must demonstrate that there is some suggestion or motivation, either in the reference or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998).

The Federal Circuit has set the bar high for establishing this third criterion. Indeed, the Federal Circuit has stated that the evidence of a motivation or suggestion to modify a reference must be "clear and particular." *In re Dembicziak*, 175 F.3d 994, 999,

50 USPQ2d 1614, 1617 (Fed. Cir. 1999). The Court has reaffirmed the Examiner's high burden to establish a prima facie case of obviousness and has repeatedly emphasized the requirement of specificity. *See Kotzab*, 217 F.3d at 1370, 55 USPQ2d, at 1317; *In re Sang-Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002); *Winner Intern. Royalty Corp. v. Wang,* 202 F.3d 1340, 50 USPQ2d 1580 (Fed. Cir. 2000).

In the present case, a prima facie case of obviousness was not established at least because the Examiner failed to provide evidence showing a motivation or suggestion to modify *Au* or to combine *Au* and *Pyles* or *Au* and *Wella* to arrive at the presently claimed invention. Moreover, the Examiner has not shown that the cited references teach or suggest each claim limitation.

A. CLAIMS 1-4, 9-20, 22-28, AND 30-42 ARE PATENTABLE OVER *AU*

As mentioned above, the prior art must provide some evidence of a motivating force that would compel one skilled in the art to do what the inventor has done. Merely taking cited art and piecing together unrelated disclosures cited therein does not amount to a motivation to make an invention. Here, however, the Examiner has done just that. By selecting disparate portions of *Au,* the Examiner has maintained that this reference could be modified to obtain the present invention. To sustain a proper rejection under 35 U.S.C. § 103, however, much more is required besides blindly identifying each claimed limitation in a document, ignoring the context in which the limitation is discussed. As explained below, the Examiner has applied this standard to the present claims and as a result has maintained an improper rejection.

1. The Examiner has Misconstrued the *Au* Reference

During the course of prosecution of the present application, the Examiner has mistakenly applied the *Au* reference to the presently pending claims. Specifically, the Examiner has incorrectly contended that *Au* teaches or suggests a composition comprising "at least one hydroxide compound and . . . at least one oxidizing agent . . . present in the composition in a sufficient quantity to effect lanthionization of keratinous fibers." Claim 1. This misunderstanding is largely due to the expansiveness of the *Au* disclosure.

Generally, *Au* broadly relates to the many uses of glycosylamide surfactants. The first portion of the specification is dedicated to describing, at length, the various compositions that can be prepared in accordance with *Au's* invention, such as bar soaps (col. 9, line 10), facial and cleansing compositions (col. 10, lines 12-14), bar and body shampoo (col. 12, lines 11-13), conditioner compositions (col. 14, lines 45-47), cosmetic compositions (col. 14, lines 54-46), etc. The second part of the specification discloses, again at length, various methods of manufacturing glycosylamides (cols. 23-31). Finally, the third part of the specification provides even more examples of the types of compositions where *Au's* glycosylamide surfactants can be used. In sum, *Au* provides a laundry list of compositions comprising glycosylamide surfactants and methods of making glycosylamide surfactants.

From this textbook-like disclosure, the Examiner formulates the rejection by piecing together ingredients used in the making of the glycosylamide surfactant with ingredients used in a shampoo. Indeed, the Examiner maintains that it would have been obvious to one having ordinary skill in the art at the time the invention was made

to make the claimed composition by combining the ingredients disclosed in *Au* because "the reference teaches compositions comprising all the claimed ingredients, and, thus, a person of ordinary skill in the art would expect such a composition to have similar properties to those claimed, absent unexpected results." Office Action dated October 27, 2003, page 4. The flaw in the Examiner's reasoning stems from the fact that he ignores the context in which various ingredients are discussed in the reference.

For example, the Examiner contends that *Au* teaches that a bleaching agent, such as hydrogen peroxide, can be present in *Au's* compositions in amounts ranging from .01% to 7%. *Office Action,* page 5. According to the Examiner, this amount "covers the amounts of 1%, 3% and 6% recited in Table 1, at page 20" of the present specification. *Id.* This is an incorrect reading of the reference.

In fact, *Au* never mentions that any of the numerous disclosed compositions can contain a bleaching agent, such as hydrogen peroxide, to lanthionize keratinous fibers. The only mention of hydrogen peroxide is in the manufacturing portion of the reference. *Au* teaches that when the glycosylamides are manufactured "[b]leaching is sometimes required but not always necessary, since **the compounds of the invention** [i.e., referring to glycosylamides] are generally of good color." Au, col. 29, ll. 58-62 (emphasis added). *Au* then lists hydrogen peroxide, a known oxidizing agent, as a potential agent to use in this bleaching process. Thus, it is clear that *Au* uses an oxidizing agent to bleach glycosylamides, which are "the compounds of the invention," and does not use an oxidizing agent as a potential ingredient in any of its disclosed compositions.

Moreover, the *Au* reference discloses that the bleaching agent may be present "preferably from about 0.03% to about 3%" by weight **of the total reaction mixture**." See Au, col. 30, ll 15-16. When Au says "the total reaction mixture," it is referring to the reaction mixture resulting from the preparation of glycosylamides and **not** the shampoo composition. Thus, the amount of hydrogen peroxide in the final shampoo composition would be far less than 3%. Indeed, considering that after the glycosylamides are bleached they are then purified, it is unlikely any hydrogen peroxide is present at all when the surfactant is finally added to a composition. And certainly any amount present is not sufficient to lanthionize keratinous fibers.

During prosecution, the Examiner modified his position in an attempt to justify the rejection. The Examiner now contends that "the bleaching agent can be added to the composition after the reaction of manufacturing the glycosylamide, which implies that the bleaching agent is part of the composition and is not used or involved in the process of manufacturing of the surfactants." Advisory Action, page 2, Office Action dated November 19, 2004, pages 5-6. This reasoning is flawed.

Indeed, it is illogical to conclude that the bleaching agent is not used or involved in the process of manufacturing glycosylamide surfactants. First, the bleaching process is described in the section entitled "Method of Manufacture of Glycosylamides." Col. 22, line 62. Thus, to conclude bleaching agents are not involved in the manufacture of glycosylamides contradicts the explicit teaching of the reference.

Au plainly states that bleaching is involved in the reaction process. The specification states, in pertinent part, that:

> Bleaching may be optionally done in water, in an inert organic solvent or mixtures thereof, before or during the

> reaction or after the reaction is complete, preferably however, bleaching is done after the reaction is complete at about 0° to about 75°.

Col. 30, lines 8-12. Nothing in this passage suggests the bleaching agent is present in the final composition. Rather, all that can be concluded is that after the glycosylamines are reacted with alkyl anhydrides or mixed anhydrides, the resultant product, i.e., the glycosylamide, can be bleached with, among other things, hydrogen peroxide. Thus, the optional bleaching step is part of the manufacturing process.

Moreover, the Examiner improperly quotes the *Au* reference in an attempt to find factual support for the rejection. The Examiner states that *Au* teaches that "the bleaching agent is added to the composition after the reaction of manufacturing of the glycosylamide . . . ." *Office Action,* page 5. This is incorrect. Rather, as mentioned above, *Au* explicitly states that bleaching can occur "after the reaction is complete. To include the term "manufacturing" is improper, unsupported by the reference, and is in direct conflict with the teachings of the reference.

The Examiner's conclusion is even more implausible because there is not a single example that supports his assertion. Admittedly, Example 31 discloses a detergent composition made from a mixture of reaction products, including from 0-20% of a bleach system. But the bleach system that this example refers to is "oxygen-or chlorine liberating bleaches, such as dicholorocy anuric acid salts or alkali metal hypochlorides." Col. 22, lines 30-32. This bleach system has nothing to do with the bleaching process step in the manufacturing process. Moreover, this bleach system is used in a detergent composition and thus has nothing to do with a composition for lanthionizing keratinous fibers, as presently claimed.

2. *Au* Fails to Render the Present Claims Obvious

A proper reading of the *Au* reference illustrates that this reference fails to render the pending claims obvious. *Au* does not teach or suggest a composition for lathionizing keratinous fibers as presently claimed. As discussed in detail above, Au is primarily directed towards the manufacture of glycosylamide surfactants and compositions comprising glycosylamide surfactants. While Au does briefly mention the possibility of hair straightening/relaxing compositions in a laundry list of possible hair care compositions, it distinguishes these compositions from shampoos, which are listed separately. See *Au*, col. 31, ll. 30-39. Yet the Examiner inconsistently relies on the reference's teachings of possible additives in *shampoos* for support that the reference teaches the elements of the claimed composition. *Office Action* dated November 19, 2005, page 2 ("*Au* teaches a shampoo composition comprising . . . .") *Au* is completely silent on a composition for lanthionizing keratinous fibers comprising any of the claimed compounds. Accordingly, for at least this reason *Au* cannot render the present claims obvious.

In addition, *Au* nowhere teaches or suggests a composition for lanthionizing keratinous fibers wherein the at least one hydroxide compound and the at least one oxidizing agent are present in the composition in a sufficient quantity to effect lanthionization of keratinous fibers, as presently claimed. The Examiner improperly finds this limitation by misreading the *Au* reference as discussed at length above. Because the hydrogen peroxide disclosed in *Au* is never incorporated into any composition, let alone a lanthionizing composition, it does not teach or suggest the claimed at least one oxidizing agent.

Moreover, because *Au* does not teach or suggest a composition comprising at least one oxidizing agent, the Examiner has failed to establish the requisite motivation to modify the reference so as to combine the at least one oxidizing agent (used for bleaching glycosylamides) into a composition for lanthionizing keratinous fibers, much less a composition wherein at least one hydroxide compound and at least one oxidizing agent are present in a composition in a sufficient quantity to effect lanthionization of keratinous fibers. Even assuming *arguendo* some trace amount of unreacted hydrogen peroxide from the glycosylamide bleaching ended up in a composition, this trace amount would be ineffective for lanthionizing keratinous fibers and thus outside the scope of the instant claims.

In sum, *Au* provides no support for the modifications that the Examiner contends would have been obvious. There is simply no basis to conclude that one skilled in the art would have selected ingredients from a shampoo and then an ingredient used in a manufacturing process to create a composition for lanthionizing keratinous fibers to achieve relaxation. Accordingly, this rejection should be withdrawn.

B. CLAIM 29 IS PATENTABLE OVER *AU* IN VIEW OF *PYLES*

The Examiner has also maintained the rejection of claim 29 under 35 U.S.C. § 103(a) over *Au* in view of U.S. 2001/0008630 A1 to Pyles et. el. ("*Pyles*") for the reasons disclosed on page 6 of the Office Action dated November 19, 2004. Appellants respectfully traverse this rejection.

The Examiner contends that *Au* suggests the use of amino acids as a genus and *Pyles* teaches a species of amino acid; thus, there is a motivation to one skilled in the art to incorporate any amino acid including the glutamate compound in *Au's*

composition. *Office Action,* page 6. As a fundamental matter, the disclosure of a genus does not alone provide the motivation to incorporate any species within that genus; thus, for at least this reason the rejection is improper. *In re Duel,* 51 F.3d 1552, 1559, 34 USPQ2d 1210, 1215 (Fed. Cir. 1995). Additionally, Appellants again find fault with the Examiner's assessment of the *Au* reference.

Specifically, Appellants submit that *Au* does not suggest the use of amino acids as a genus. To support his position, the Examiner cites to the following portion of *Au*:

> Some other preferred moisturizers are the nonoclusive liquid water soluble polyols and the essential amino acids compounds found natural in the skin.

Col. 22, lines 63-64 (emphasis added). From this passage, the Examiner concludes that *Au* teaches amino acids as a genus. The Examiner is incorrect - by omitting the term "essential," when characterizing the *Au* reference, the Examiner tries to make it appear as though this reference teaches amino acids as a class. But *Au* teaches only essential amino acids, i.e. amino acids that cannot be synthesized by the body. Thus, because *Au* only teaches essential amino acids, as clearly disclosed in the reference, no motivation would have existed to incorporate a non-essential amino acid. Accordingly, for at least this reason, the rejection is improper and should be withdrawn.

C. CLAIMS 5-8 AND 43-45 ARE PATENTABLE OVER *AU* IN VIEW OF *WELLA*

The Examiner has rejected claims 5-8 and 43-45 under 35 U.S.C. § 103 as allegedly obvious over *Au* in view of *Wella*. According to the Examiner, *Au* "teaches a shampoo composition comprising sodium hydroxide . . . , [the] oxidizing agent of hydrogen peroxide . . . , and [the] complexing agent or sequestering agent that

dissociate[s] hydroxide compounds . . . ." April 13, 2004, Office Action at 3. The Examiner admits that Au "is silent about the percentage amount of sodium hydroxide in the composition," but alleges that Wella "teaches . . . a composition comprising 2.0% of sodium hydroxide . . . ." *Id.* From this the Examiner concludes that "one having ordinary skill in the art . . . [would] be motivated to modify the composition in Au et al., by optimizing the amounts of sodium hydroxide in order to get the maximum effective amount." *Id.*

Wella does not cure the deficiencies in *Au* discussed above as neither reference teaches "at least one hydroxide compound and . . . at least one oxidizing agent . . . present in the composition in a sufficient quantity to effect lanthionization of keratinous fibers." Therefore, the Examiner has not established that the combination of Au in view of *Wella* renders claims 5-8 and 43-45 obvious, and Appellants respectfully request that this rejection be withdrawn.

IV. Conclusion

In view of the foregoing remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims. Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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